Connecting via Winsock to STN

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LOGINID:SSSPTA1623PAZ

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	Jul 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS	4	AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS	5	AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS	6	AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS	7	AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS	8	AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS	9	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS	10	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	11	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS	12	SEP 14	STN Patent Forum to be held October 13, 2004, in Iselin, NJ
NEWS	13	SEP 27	STANDARDS will no longer be available on STN
NEWS	14	SEP 27	SWETSCAN will no longer be available on STN

NEWS EXPRESS	JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:23:54 ON 07 OCT 2004

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 12:24:31 ON 07 OCT 2004

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FILE COVERS 1907 - 7 Oct 2004 VOL 141 ISS 15
FILE LAST UPDATED: 6 Oct 2004 (20041006/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.88	1.09

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:25:48 ON 07 OCT 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 12:31:43 ON 07 OCT 2004
FILE 'CAPLUS' ENTERED AT 12:31:43 ON 07 OCT 2004
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.88	1.09

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.88	1.09

FILE 'REGISTRY' ENTERED AT 12:31:54 ON 07 OCT 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 OCT 2004 HIGHEST RN 757927-15-4
DICTIONARY FILE UPDATES: 6 OCT 2004 HIGHEST RN 757927-15-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

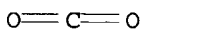
```
=> e carbon dioxide/cn
E1            1      CARBON DINITRIDE/CN
E2            1      CARBON DINITRIDE ION(2-)/CN
E3            1 --> CARBON DIOXIDE/CN
E4            1      CARBON DIOXIDE (11CO2)/CN
E5            1      CARBON DIOXIDE (12C16O18O+)/CN
E6            1      CARBON DIOXIDE (12C17O16O)/CN
E7            1      CARBON DIOXIDE (12C18O2)/CN
E8            1      CARBON DIOXIDE (13C16O18O)/CN
E9            1      CARBON DIOXIDE (13C16O2)/CN
E10           1      CARBON DIOXIDE (13C18O2)/CN
E11           1      CARBON DIOXIDE (13C18OO)/CN
E12           1      CARBON DIOXIDE (13CO2)/CN

=> e3
L1            1 "CARBON DIOXIDE"/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   124-38-9  REGISTRY
CN   Carbon dioxide (8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Carbon oxide (CO2)
CN   Carbon-12 dioxide
CN   Carbon-12C dioxide-16O2
CN   Carbonic acid anhydride
CN   Carbonic acid gas
CN   Carbonic anhydride
CN   Dry ice
CN   Khladon 744
CN   R 744
FS   3D CONCORD
DR   18923-20-1
MF   C O2
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,
       DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
       ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
       IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS,
       RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL,
       VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA  CAplus document type:  Book; Conference; Dissertation; Journal; Patent;
       Preprint; Report
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC
       (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
       PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role
```

in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

180629 REFERENCES IN FILE CA (1907 TO DATE)
694 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
180927 REFERENCES IN FILE CAPLUS (1907 TO DATE)
21 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
=> e methane/cn
E1            1      METHANDROSTENOLONE GLUCURONIDE/CN
E2            1      METHANDROSTENOLONE SULFATE/CN
E3            1 --> METHANE/CN
E4            1      METHANE (11CH4)/CN
E5            1      METHANE (13CD4)/CN
E6            1      METHANE (13CH2D2)/CN
E7            1      METHANE (13CH3D)/CN
E8            1      METHANE (13CH4)/CN
E9            1      METHANE (13CHD3)/CN
E10           1      METHANE (CD2T2)/CN
E11           1      METHANE (CD3H+)/CN
E12           1      METHANE (CD4)/CN

=> e3
L2            1 METHANE/CN

=> l2
L3            1 METHANE/CN

=> d l3

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   74-82-8  REGISTRY
CN   Methane (8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Biogas
CN   Marsh gas
CN   Methyl hydride
CN   R 50
CN   R 50 (refrigerant)
FS   3D CONCORD
DR   131452-56-7
MF   C H4
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
```

CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

CH_4

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

107029 REFERENCES IN FILE CA (1907 TO DATE)
3612 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
107187 REFERENCES IN FILE CAPLUS (1907 TO DATE)
18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.67	18.76

FILE 'CAPLUS' ENTERED AT 12:33:19 ON 07 OCT 2004

FILE COVERS 1907 - 7 Oct 2004 VOL 141 ISS 15
FILE LAST UPDATED: 6 Oct 2004 (20041006/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> l1/rct
        181099 L1
       2664707 RCT/RL
L4       18266 L1/RCT
                 (L1 (L) RCT/RL)

=> l2/rct
        107266 L2
       2664707 RCT/RL
L5       22523 L2/RCT
                 (L2 (L) RCT/RL)

=> l4(l)l5
L6           0 L4(L)L5

=> l4 and l5
L7        1541 L4 AND L5

=> vanadium or V
        145353 VANADIUM
            27 VANADIUMS
        145357 VANADIUM
                 (VANADIUM OR VANADIUMS)
       1010653 V
L8     1078373 VANADIUM OR V

=> l7 and l8
L9          52 L7 AND L8

=> anhydride
        190862 ANHYDRIDE
         30811 ANHYDRIDES
L10     200757 ANHYDRIDE
                 (ANHYDRIDE OR ANHYDRIDES)

=> l9 and l10
L11          1 L9 AND L10

=> d l11

L11  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:597014  CAPLUS
DN   139:260939
TI   Synthesis of Mixed Acid Anhydrides from Methane and Carbon
     Dioxide in Acid Solvents
AU   Zerella, Mark; Mukhopadhyay, Sudip; Bell, Alexis T.
CS   Department of Chemical Engineering, University of California-Berkeley,
     Berkeley, CA, 94720, USA
SO   Organic Letters (2003), 5(18), 3193-3196
     CODEN: ORLEF7; ISSN: 1523-7060
PB   American Chemical Society
DT   Journal
LA   English
OS   CASREACT 139:260939
RE.CNT  23    THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> file reg
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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                                                        ENTRY     SESSION
FULL ESTIMATED COST                                     13.68       32.44

FILE 'REGISTRY' ENTERED AT 12:37:53 ON 07 OCT 2004
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STRUCTURE FILE UPDATES:    6 OCT 2004  HIGHEST RN 757927-15-4
DICTIONARY FILE UPDATES:   6 OCT 2004  HIGHEST RN 757927-15-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> e acetic acid/cn
E1            1     ACETIC 6-PROPIONAMIDOHEXANOIC ANHYDRIDE/CN
E2            1     ACETIC ACETOXYACETIC ANHYDRIDE/CN
E3            1 --> ACETIC ACID/CN
E4            1     ACETIC ACID (((5-PHENYL-1H-PYRROLO(2,3-B)PYRIDIN-3-YL)CARBAM
                    OYL)METHYL)  ESTER/CN
E5            1     ACETIC ACID ((1-((4-((1-(3-FLUOROBENZYL)-1H-INDAZOL-5-YL)AMI
                    NO)PYRROLO(2,1-F)(1,2,4)TRIAZIN-5-YL)METHYL)PIPERIDIN-4-YL)C
                    ARBAMOYL)METHYL ESTER/CN
E6            1     ACETIC ACID ((2-((3-CHLORO-4-(2-METHYLBENZOYL)PHENYL)AMINO)P
                    HENYL)CARBAMOYL)METHYL ESTER/CN
E7            1     ACETIC ACID ((3-((3-BENZYL-5-(3-METHYL-3H-BENZOTHIAZOL-2-YLI
                    DENE)-4-OXOTHIAZOLIDIN-2-YLIDENE)AMINO)-4-ETHYLAMINOPHENYL)C
                    ARBAMOYL)METHYL ESTER/CN
E8            1     ACETIC ACID ((4-((1-(3-FLUOROBENZYL)-1H-INDAZOL-5-YL)AMINO)P
                    YRROLO(2,1-F)(1,2,4)TRIAZIN-5-YL)METHYL)  ESTER/CN
E9            1     ACETIC ACID ((4-CHLOROPYRROLO(2,1-F)(1,2,4)TRIAZIN-5-YL)METH
                    YL)  ESTER/CN
E10           1     ACETIC ACID (1-(2-ACETOXY-2-(1-(4-CHLOROPHENYL)CYCLOBUTYL)ET
                    HYL)-4-PHENYLPIPERIDIN-4-YL)METHYL ESTER/CN
E11           1     ACETIC ACID (1-(2-ACETOXY-2-(4-CHLOROPHENYL)ETHYL)-4-PHENYLP
                    IPERIDIN-4-YL)METHYL ESTER/CN
E12           1     ACETIC ACID (1S*,9BS*)-8-CHLORO-1-(3,5-DIMETHOXYPHENOXY)-2,4
                    -DIOXO-9B-PHENYL-1,3,4,9B-TETRAHYDRO-2H-2A,5-DIAZABENZO(A)CY
                    CLOBUTA(C)CYCLOHEPTEN-5-YLMETHYL ESTER/CN

=> e3
L12           1 "ACETIC ACID"/CN

=> file caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY     SESSION
FULL ESTIMATED COST                                   4.85       37.29

FILE 'CAPLUS' ENTERED AT 12:38:27 ON 07 OCT 2004
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FILE COVERS 1907 - 7 Oct 2004 VOL 141 ISS 15
FILE LAST UPDATED: 6 Oct 2004 (20041006/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> l12
L13       87602 L12

=> d his

     (FILE 'HOME' ENTERED AT 12:23:54 ON 07 OCT 2004)

     FILE 'CAPLUS' ENTERED AT 12:24:31 ON 07 OCT 2004

     FILE 'REGISTRY' ENTERED AT 12:31:54 ON 07 OCT 2004
                E CARBON DIOXIDE/CN
L1              1 E3
                E METHANE/CN
L2              1 E3
L3              1 L2

     FILE 'CAPLUS' ENTERED AT 12:33:19 ON 07 OCT 2004
L4          18266 L1/RCT
L5          22523 L2/RCT
L6              0 L4(L)L5
L7           1541 L4 AND L5
L8        1078373 VANADIUM OR V
L9             52 L7 AND L8
L10       200757 ANHYDRIDE
L11             1 L9 AND L10

     FILE 'REGISTRY' ENTERED AT 12:37:53 ON 07 OCT 2004
                E ACETIC ACID/CN
L12             1 E3

     FILE 'CAPLUS' ENTERED AT 12:38:27 ON 07 OCT 2004
L13         87602 L12

=> l9 and l13
L14             5 L9 AND L13

=> d l14 1-5 ti fbib abs

L14  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Synthesis of Mixed Acid Anhydrides from Methane and Carbon Dioxide in Acid
     Solvents
AN   2003:597014  CAPLUS
DN   139:260939
TI   Synthesis of Mixed Acid Anhydrides from Methane and Carbon Dioxide in Acid
     Solvents
AU   Zerella, Mark; Mukhopadhyay, Sudip; Bell, Alexis T.
CS   Department of Chemical Engineering, University of California-Berkeley,
```

Berkeley, CA, 94720, USA
SO Organic Letters (2003), 5(18), 3193-3196
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:260939
AB The reaction of CH4 with CO2 has been performed in anhydrous acids using VO(acac)2 and K2S2O8 as promoters. NMR anal. establishes that the primary product is a mixed anhydride of acetic acid and the acid solvent. In sulfuric acid, the overall reaction is CH4 + CO2 + SO3 → CH3C(O)-O-SO3H. Hydrolysis of the mixed anhydride produces acetic acid and the solvent acid. When trifluoroacetic acid is the solvent, acetic acid is primarily formed via the reaction CH4 + CF3COOH → CH3COOH + CHF3.
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
TI Catalysts for the oxidative dehydrogenation of hydrocarbons
AN 2002:220448 CAPLUS
DN 136:250124
TI Catalysts for the oxidative dehydrogenation of hydrocarbons
IN Cantrell, Rick David; Ghenciu, Anca; Cambpell, Kenneth Dwight; Minahan, David Michael Anthony; Bhasin, Madan Mohan; Westwood, Alistair Duncan; Nielsen, Kenneth Andrew
PA Union Carbide Chemicals & Plastics Technology Corporation, USA
SO PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	WO 2002022258	A2	20020321	WO 2001-US28924		20010913
	WO 2002022258	A3	20020620			
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
				US 2000-664954	A	20000918
	US 6403523	B1	20020611	US 2000-664954		20000918
	AU 2001091002	A5	20020326	AU 2001-91002		20010913
				US 2000-664954	A	20000918
				WO 2001-US28924	W	20010913
	BR 2001014462	A	20030701	BR 2001-14462		20010913
				US 2000-664954	A	20000918
				WO 2001-US28924	W	20010913
	EP 1326710	A2	20030716	EP 2001-971071		20010913
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
				US 2000-664954	A	20000918
				WO 2001-US28924	W	20010913
	JP 2004508190	T2	20040318	JP 2002-526500		20010913
				US 2000-664954	A	20000918
				WO 2001-US28924	W	20010913
	US 2002173420	A1	20021121	US 2002-124564		20020416
	US 6576803	B2	20030610			
				US 2000-664954	A3	20000918
	NO 2003001210	A	20030516	NO 2003-1210		20030317

US 2000-664954 A 20000918
WO 2001-US28924 W 20010913

AB The present invention provides a catalyst for the oxidative dehydrogenation of a lower hydrocarbon to form at least one higher hydrocarbon and/or lower olefin. In one embodiment, the catalyst includes a nonstoichiometric rare earth oxycarbonate of the formula MxCyOz having a disordered and/or defect structure, wherein M is at least one rare earth element selected from the group consisting of La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, and Tm; X = 2; Z = 3 + AY; A is less than .apprx.1.8, and Y is the number of carbon atoms in the oxycarbonate. When used for the oxidative dehydrogenation of a lower hydrocarbon at a pressure above bout 100 psig. the catalyst has a selectivity of at least .apprx.40% to at least one higher hydrocarbon and/or lower olefin. Methods for preparing catalysts taught by the invention and processes for using the catalysts for the oxidative dehydrogenation of lower hydrocarbons are also provided.

L14 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for the preparation of carboxylic acid
AN 1998:561166 CAPLUS
DN 129:230454
TI Process for the preparation of carboxylic acid
IN Fujiwara, Yuzo; Kitamura, Kazuo; Taniguchi, Hiroki
PA Sumitomo Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10226665	A2	19980825	JP 1997-47839	19970303
			JP 1996-329965	19961210

OS CASREACT 129:230454
AB Characterized is a process for preparation of the title compds. (I) by reacting alkanes with CO or CO2 in the presence of oxidants and **vanadium** catalysts. This process produces I in an industrial manner efficiently and economically. Thus, CH4 was reacted with CO in the presence of VO(acac)2 and K2S2O8 at 80° for 20 h under 5 atm to give 34.5% AcOH.

L14 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
TI Carboxylation of methane with CO or CO2 in aqueous solution catalyzed by **vanadium** complexes
AN 1998:544982 CAPLUS
DN 129:303938
TI Carboxylation of methane with CO or CO2 in aqueous solution catalyzed by **vanadium** complexes
AU Nizova, Galina V.; Shul'pin, Georgiy B.; Nizova, Galina V.; Suss-Fink, Georg; Stanislas, Sandrine
CS Semenov Institute of Chemical Physics, Russian Academy of Sciences, Moscow, 117977, Russia
SO Chemical Communications (Cambridge) (1998), (17), 1885-1886
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
AB Carboxylation of CH4 with CO or CO2 in aqueous solution in the presence of O (catalyzed by NaVO3) or H2O2 (catalyzed by NaVO3-pyrazine-2-carboxylic acid) at 25-100° affords AcOH and, in some cases, also MeOH, MeO2H and HCHO.
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Vanadium**-catalyzed acetic acid synthesis from methane and carbon

dioxide
AN 1998:322029 CAPLUS
DN 129:42531
TI **Vanadium**-catalyzed acetic acid synthesis from methane and carbon dioxide
AU Taniguchi, Yuki; Hayashida, Taizo; Kitamura, Tsugio; Fujiwara, Yuzo
CS Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-81, Japan
SO Studies in Surface Science and Catalysis (1998), 114(Advances in Chemical Conversions for Mitigating Carbon Dioxide), 439-442
CODEN: SSCTDM; ISSN: 0167-2991
PB Elsevier Science B.V.
DT Journal
LA English
AB The preparation of AcOH from CO2 and CH4 was carried out using K2S2O8 in TFA and VO(acac)2 as catalyst.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>
=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	24.63	61.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.50	-3.50

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:54:24 ON 07 OCT 2004

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Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 13:08:45 ON 07 OCT 2004
FILE 'CAPLUS' ENTERED AT 13:08:45 ON 07 OCT 2004
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FULL ESTIMATED COST	24.63	61.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.50	-3.50

=> d his

(FILE 'HOME' ENTERED AT 12:23:54 ON 07 OCT 2004)

FILE 'CAPLUS' ENTERED AT 12:24:31 ON 07 OCT 2004

FILE 'REGISTRY' ENTERED AT 12:31:54 ON 07 OCT 2004
E CARBON DIOXIDE/CN
L1 1 E3

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                E METHANE/CN
L2              1 E3
L3              1 L2

     FILE 'CAPLUS' ENTERED AT 12:33:19 ON 07 OCT 2004
L4          18266 L1/RCT
L5          22523 L2/RCT
L6              0 L4(L)L5
L7           1541 L4 AND L5
L8        1078373 VANADIUM OR V
L9             52 L7 AND L8
L10        200757 ANHYDRIDE
L11             1 L9 AND L10

     FILE 'REGISTRY' ENTERED AT 12:37:53 ON 07 OCT 2004
                E ACETIC ACID/CN
L12             1 E3

     FILE 'CAPLUS' ENTERED AT 12:38:27 ON 07 OCT 2004
L13         87602 L12
L14             5 L9 AND L13

=> save temp all caboxyltn/l
L# LIST L1-L14 HAS BEEN SAVED AS 'CABOXYLTN/L'

=> logoff hold
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                25.51      62.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                -3.50      -3.50

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:10:03 ON 07 OCT 2004

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LOGINID:SSSPTA1623PAZ

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 13:28:05 ON 07 OCT 2004
FILE 'CAPLUS' ENTERED AT 13:28:05 ON 07 OCT 2004
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)file re

COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                25.51      62.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                -3.50      -3.50

=> file reg
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                25.51      62.80
```

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE -3.50 -3.50

FILE 'REGISTRY' ENTERED AT 13:28:13 ON 07 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 6 OCT 2004 HIGHEST RN 757927-15-4
DICTIONARY FILE UPDATES: 6 OCT 2004 HIGHEST RN 757927-15-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

```
=> e vanadium pentoxide/cn
E1            1     VANADIUM PENTAFLUORIDE/CN
E2            1     VANADIUM PENTAFLUORIDE ION(1-)/CN
E3            1 --> VANADIUM PENTOXIDE/CN
E4            1     VANADIUM PENTOXIDE HYDRATE/CN
E5            1     VANADIUM PENTOXIDE HYDRATE (2:3)/CN
E6            1     VANADIUM PENTOXIDE MONOHYDRATE/CN
E7            1     VANADIUM PENTYLOXIDE/CN
E8            1     VANADIUM PERCHLORATE (V(CLO4)2)/CN
E9            1     VANADIUM PERCHLORATE (V(CLO4)4)/CN
E10           1     VANADIUM PERCHLORATE (V(CLO4)5)/CN
E11           1     VANADIUM PERMENDUR/CN
E12           1     VANADIUM PEROXIDE (V(O2)2), (T-4)-/CN

=> e3
L15           1 "VANADIUM PENTOXIDE"/CN

=> d l15

L15  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   1314-62-1  REGISTRY
CN   Vanadium oxide (V2O5) (8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   C.I. 77938
CN   Divanadium pentaoxide
CN   Divanadium pentoxide
CN   Pentaoxodivanadium
CN   Vanadia
CN   Vanadic anhydride
CN   Vanadium oxide
CN   Vanadium oxide (V4O10)
CN   Vanadium pentoxide
CN   Vanadium(V) oxide
DR   12503-98-9, 166165-37-3, 172928-47-1, 56870-07-6, 87854-55-5, 87854-56-6,
     184892-22-6, 200577-85-1, 203812-34-4, 251927-12-5, 410546-90-6,
     581075-33-4
MF   O5 V2
CI   COM, MAN
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LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

22028 REFERENCES IN FILE CA (1907 TO DATE)
263 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
22057 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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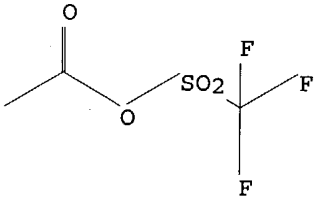

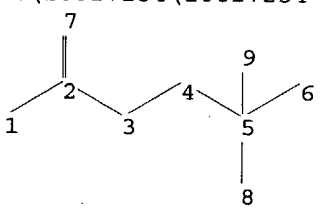

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chain bonds :
1-2 2-3 2-7 3-4 4-5 5-6 5-8 5-9
exact/norm bonds :
2-3 2-7 3-4
exact bonds :
1-2 4-5 5-6 5-8 5-9

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

L16 STRUCTURE UPLOADED

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L16 HAS NO ANSWERS
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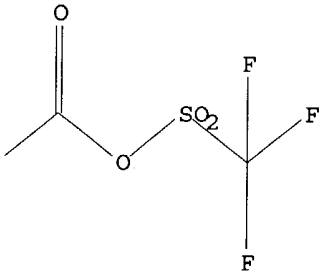

Structure attributes must be viewed using STN Express query preparation.

=> search l16 exaqct full
COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID
The query entered contains both search terms created by
structure-building or screen commands and text search terms. L#s
created via the STRUCTURE or SCREEN commands must be searched in the
structures files separately from text terms or profiles. The L#
answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

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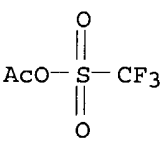
FULL SEARCH INITIATED 13:34:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L17 1 SEA EXA FUL L16

=> d l17

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 40640-72-0 REGISTRY
CN Acetic acid, anhydride with trifluoromethanesulfonic acid (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Acetic trifluoromethanesulfonic anhydride
FS 3D CONCORD
MF C3 H3 F3 O4 S
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	64.84	127.64

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-3.50

FILE 'CAPLUS' ENTERED AT 13:35:04 ON 07 OCT 2004
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FILE COVERS 1907 - 7 Oct 2004 VOL 141 ISS 15
FILE LAST UPDATED: 6 Oct 2004 (20041006/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> l17
L18 6 L17

=> d l18 1-6 ti

L18 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Two-step process for the preparation of triflic anhydride

L18 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Electrophilic aromatic substitution. 24. Carboxylic trifluoromethanesulfonic and methanesulfonic anhydrides synthesis and dissociation tendency

L18 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synthesis and reactions of sulfenic trifluoromethanesulfonic anhydrides

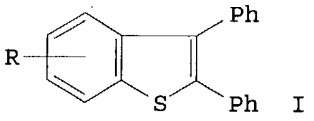
L18 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Stereochemistry and mechanism of acylation of acetylenes

L18 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mechanism of the C-acylation of aromatic and ethylenic compounds. XIII. Structure of trifluoromethanesulfonic acid (and fluorosulfonic acid) and acetic anhydride mixtures. Existence range and formation mechanism of the acetylium ion

L18 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mechanism of acetylium ion formation from ambident base acetic trifluoromethanesulfonic anhydride

=> d l18 3 ti fbib abs

L18 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synthesis and reactions of sulfenic trifluoromethanesulfonic anhydrides
AN 1983:106904 CAPLUS
DN 98:106904
TI Synthesis and reactions of sulfenic trifluoromethanesulfonic anhydrides
AU Effenberger, Franz; Russ, Werner
CS Inst. Org. Chem., Univ. Stuttgart, Stuttgart, D-7000/80, Fed. Rep. Ger.
SO Chemische Berichte (1982), 115(12), 3719-36
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
OS CASREACT 98:106904
GI



I

AB Sulfenyl halides 4-RC6H4SCl (R = MeO, Me, Cl, NO2, H) and R1SCl (R1 = Me, Et) reacted with AgOSO2CF3 to give good yields of anhydrides 4-RC6H4SOSO2CF3 and R1SOSO2CF3, which could not be isolated because of their instability. 1H NMR of R1SOSO2CF3 in CH2Cl2 and MeNO2 indicated dissociation to adducts of alkylsulfenylium ions and the solvent. 4-RC6H4SOSO2CF3 did not react with aromatic compds. (C6H6, 4-MeOPh, PhMe, etc.) but added smoothly to PhC.tplbond.CPh to give 4-RC6H4SCPh:CPhOSO2CF3 which, under the reaction conditions cyclized immediately to give excellent yields of benzothiophenes I.

=> d l18 1,2, 4-6 ti fbib abs

L18 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Two-step process for the preparation of triflic anhydride
AN 2001:676744 CAPLUS
DN 135:226715
TI Two-step process for the preparation of triflic anhydride
IN Hembre, Robert Thomas; Lin, Robert
PA Eastman Chemical Company, USA
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	WO 2001066516	A1	20010913	WO 2001-US6704		20010301
	W: JP					
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR					
				US 2000-187832P	P	20000308
				US 2001-792995	A	20010226
	US 2002002301	A1	20020103	US 2001-792995		20010226
	US 6469206	B2	20021022			
				US 2000-187832P	P	20000308

EP 1261582	A1	20021204	EP 2001-914629	20010301
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
			US 2000-187832P	P 20000308
			US 2001-792995	A 20010226
			WO 2001-US6704	W 20010301
JP 2003525926	T2	20030902	JP 2001-565334	20010301
			US 2000-187832P	P 20000308
			US 2001-792995	A 20010226
			WO 2001-US6704	W 20010301

OS CASREACT 135:226715; MARPAT 135:226715

AB Trifluoromethanesulfonic acid anhydride is prepared in high yield and selectivity by: (1) forming a mixed anhydride comprising a trifluoromethanesulfonyl residue and a carboxyl residue by contacting trifluoromethanesulfonic acid or a derivative of a carboxyl compound [selected from ketene, dialkyl ketenes (e.g., di-Me ketene), carboxylic acids, acyl halides, and carboxylate salts]; and (2) subjecting the mixed anhydride to reactive distillation where the mixed anhydride undergoes disproportionation to produce triflic anhydride and a higher-boiling carboxylic acid anhydride (e.g., acetic anhydride).

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

TI Electrophilic aromatic substitution. 24. Carboxylic trifluoromethanesulfonic and methanesulfonic anhydrides synthesis and dissociation tendency

AN 1983:160182 CAPLUS

DN 98:160182

TI Electrophilic aromatic substitution. 24. Carboxylic trifluoromethanesulfonic and methanesulfonic anhydrides synthesis and dissociation tendency

AU Effenberger, Franz; Epple, Gerhard; Eberhard, Joachim K.; Buehler, Ulrich; Sohn, Erich

CS Inst. Org. Chem., Univ. Stuttgart, Stuttgarg, D-7000/80, Fed. Rep. Ger.

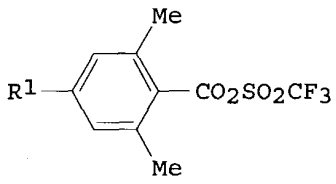
SO Chemische Berichte (1983), 116(3), 1183-94
CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA German

OS CASREACT 98:160182

GI



II

AB RCOCl (R = Ph, substituted Ph, alkyl, vinyl, styryl) reacted with CF3SO3Ag or CF3SO3H to give RCO2SO2CF3 (I) and with MeSO3Ag to give RCO2SO2Me. Dissociation of I occurred even in ClCH2CH2Cl. The dissociation consts. of II (R1 = H, Me, MeO, Cl, NO2) had an LFER in σp+ values with ρ -1.614.

L18 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

TI Stereochemistry and mechanism of acylation of acetylenes

AN 1975:154798 CAPLUS

DN 82:154798

TI Stereochemistry and mechanism of acylation of acetylenes

AU Martens, H.; Janssens, F.; Hoornaert, G.

CS Lab. Org Synth., Univ. Leuven, Heverlee, Belg.
SO Tetrahedron (1975), 31(2), 177-83
CODEN: TETRAB; ISSN: 0040-4020
DT Journal
LA English
AB The addition of acid chloride-AlCl3 complexes and acyl trifluoromethanesulfonates (triflates) to alkynes occurs at least partly via vinyl cation intermediates. With aroyl chlorides and triflates the intermediate may be attacked by the aromatic nucleus to give indenones. The greater indenone formation by triflates is explained by the hardness of F3CSO3- compared to AlCl4-. Electron donating and withdrawing substituents in the acid chlorides favored trans and cis addition, resp.

L18 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mechanism of the C-acylation of aromatic and ethylenic compounds. XIII. Structure of trifluoromethanesulfonic acid (and fluorosulfonic acid) and acetic anhydride mixtures. Existence range and formation mechanism of the acetylium ion
AN 1974:47251 CAPLUS
DN 80:47251
TI Mechanism of the C-acylation of aromatic and ethylenic compounds. XIII. Structure of trifluoromethanesulfonic acid (and fluorosulfonic acid) and acetic anhydride mixtures. Existence range and formation mechanism of the acetylium ion
AU Germain, Alain; Commeyras, Auguste; Casadevall, Andre
CS Lab. Intermediaires React. Mec. React., Univ. Sci. Tech. Languedoc, Montpellier, Fr.
SO Bulletin de la Societe Chimique de France (1973), (7-8)(Pt. 2), 2527-31
CODEN: BSCFAS; ISSN: 0037-8968
DT Journal
LA French
AB An ir and NMR study of Ac2O-CF3SO3H mixts. showed that formation of MeC+:O occurred through an intermediate mixed anhydride AcOSO2CF3 which was an ambident base, being protonated on the carbonyl group when Ac2O was the solvent and on the sulfonyl group when CF3SO3H was the solvent.

L18 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mechanism of acetylium ion formation from ambident base acetic trifluoromethanesulfonic anhydride
AN 1973:96767 CAPLUS
DN 78:96767
TI Mechanism of acetylium ion formation from ambident base acetic trifluoromethanesulfonic anhydride
AU Germain, A.; Commeyras, A.
CS Lab. Chim. Org., Univ. Sci. Tech. Languedoc, Montpellier, Fr.
SO Journal of the Chemical Society, Chemical Communications (1972), (24), 1345-6
CODEN: JCCCAT; ISSN: 0022-4936
DT Journal
LA English
AB The ir spectra of mixts. of Ac2O and CF3SO3H showed that AcOSO2CF3 was an ambident base with either CO or SO protonated. In very strong acid it dissociated to form Ac+. An NMR determination showed a pos. entropy of formation indicating heterolysis of the protonated mixed anhydride.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	19.80	147.44
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.20	-7.70

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:38:57 ON 07 OCT 2004